



North Dakota

Wellhead Protection

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North Dakota State Department of Health
Division of Water Quality

Private Water Wells in Wellhead Protection Areas

As public water supply (PWS) system owners and operators implement their wellhead protection programs, they occasionally have questions about private water wells in or near a wellhead protection area. The primary concerns with private water wells in wellhead protection areas involve proper construction, installation and maintenance of wells to prevent contamination of the PWS source water. This newsletter issue reviews the state rules that apply to private water wells.

Private water wells typically are installed for domestic, livestock, irrigation or industrial use. In addition to private water wells, monitoring wells or observation wells owned by state agencies or private parties may be present in or near wellhead protection areas to monitor aquifer conditions and ground water quality. Depending upon the availability and quality of local ground water, domestic water wells within a city's corporate boundaries are commonly used for watering lawns and gardens, whereas the household water may be supplied by the PWS system. Private water wells also may be used for domestic and industrial water supplies in situations where a city's water distribution system may not extend to all inhabited structures within the corporate boundaries. The State Plumbing Code requires that inhabited structures connect to the PWS system for water supply if they are within 200 feet of a distribution line, as measured along a street, alley or easement. The Plumbing Code also includes minimum standards for production capacity of a domestic well and its connection to an inhabited structure if a PWS system is not available.

Domestic and livestock water wells do not require a permit for ground water use from the North Dakota State Water Commission if the amount of ground water withdrawn is less than 12.5 acre feet per year, or an average of 11,000 gallons per day. All irrigation use over one acre and all industrial use of water, in addition to livestock

water withdrawals of more than 12.5 acre feet per year, must have an appropriation permit from the State Water Commission. The permitting process involves several steps, including a public notice and comment period. The start/duration of this period is noted on the permit application. Guidelines for the water permitting process are available on the State Water Commission website at www.swc.state.nd.us or call 701.328.2750.

The installation and construction requirements for private water wells are given in the *Water Well Construction Rules* (NDAC 33-18-01) administered by the North Dakota Department of Health (NDDoH) and the Board of Water Well Contractors. The rules provide minimum standards for well installation and construction to prevent water well contamination and to protect the ground water resource. Anyone hired to install a water well must possess water well contractor certification by the board. Individuals, however, are not precluded from installing a well on their property for their use, provided the code requirements are met. The water well construction rules are available at the NDDoH website at www.health.state.nd.us/ndhd/envIRON/wq/gw or by calling the NDDoH at 701.328.5210.

The presence of abandoned private water wells is often a concern for wellhead protection area management. Abandoned water wells pose several potential risks, including physical hazards, ground water contamination and loss of aquifer yield. Properly plugging an abandoned well will reduce or eliminate these potential risks. The North Dakota State University Extension Service's guideline for plugging abandoned wells is available at its website at www.ext.nodak.edu or by calling the NDDoH at 701.328.5210.

Private water well owners may voluntarily choose to plug an abandoned well, but situations may arise in which a

well owner is resistant to plugging an abandoned well. In these situations, state statutes may be considered to order that a well be plugged. NDCC section 23-13-06 states that the owner of an abandoned well shall fill the well to protect the safety of people and property. NDCC section 23-13-08 states that the township may fill the well if the owner fails to do so and obtain a judgment against the landowner to recover the cost.

Local ordinances or programs may be enacted to give the PWS governing board more options for managing private water wells. Ordinances might involve requiring a local permit to install a well or requiring annual inspections or sampling to ensure that the wells are properly maintained. Cost sharing for plugging abandoned wells also may be helpful.

EPA Announces New Regulations for Some Class V Disposal Systems

Class V underground disposal systems are usually shallow dry wells or septic tank/drain field systems used to place a variety of fluids below the land surface. Small-volume systems that dispose only of sanitary or household waste are not included in the Class V regulations. The new regulations have specific applications for motor vehicle waste disposal systems located in wellhead protection or

source water protection areas. These systems receive fluids from vehicular repair or maintenance activities and commonly have a shop floor drain connected to a dry well or septic tank/drain field system. New systems that receive motor vehicle waste fluids are prohibited as of April 2000, and existing systems within a wellhead or source water protection area must be closed within one year of being identified. For a fact sheet on the new regulations, visit the NDDoH website at www.health.state.nd.us/ndhd/envIRON/wq/gw or call the NDDoH at 701.328.5210.

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